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**PATENT COOPERATION TREATY**  
**INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY - IPEA/EP**

Applicant: Thomson Licensing S.A. et al.  
Int'l Appln. No.: PCT/US2004/001747  
Int'l Filing Date: 22 January 2004 (22.01.2004)  
Title of Invention: BROADCAST CONDITIONAL ACCESS SYSTEM  
WITH IMPULSE PURCHASE CAPABILITY IN A  
TWO WAY NETWORK

**FIRST OPINION REPLY/AMENDMENT UNDER PCT ARTICLE 34**

Attn: IPEA/EP  
European Patent Office  
D-80298 Munich  
Germany

Sir:

In response to the First Written Opinion dated October 4, 2004, for which a reply period of 22 months ending October 8, 2005 was set, please replace the original claims 1-11 with the amended claims 1-13 set forth on the attached substitute sheets and consider the accompanying explanation and statements.

**DIFFERENCES BETWEEN THE INTERNATIONAL APPLICATION**  
**CLAIMS AS FILED AND THE REPLACEMENT CLAIMS PRESENTED**  
**HEREWITH**

Replacement claims 1-2 correspond to previous claims 1-2, respectfully.

Replacement claims 3-6 depend upon replacement claim 2 and recite additional features of the invention.

Replacement claim 7 corresponds to previous claim 6.

Replacement claim 8 corresponds to previous claim 8.

Previous claims 7 and 9 are cancelled.

Replacement claims 9-12 recite additional features of the invention.

Replacement claim 13 corresponds to previous claim 11.

STATEMENT

The claims have been rewritten as follows to more clearly and distinctly recite the subject matter that applicant regards as his invention. No new matter is believed to be added by the replacement claims.

Previous claims 1-11 are deemed to lack novelty in view of US 2002/044658 (Akins et al. "D1"). Applicant respectfully submits that replacement claims 1-13 are novel and include an inventive step over the teachings of D1.

The present invention relates to a method and apparatus for enabling impulse purchase capability in a two way network. As impulse purchase is one where the customer decides to watch a program in close proximity to the time the program is broadcast (page 1, lines 21-22). In prior art systems that enable impulse purchases, the access keys for enabling the purchases are stored, or **preloaded**, within the set top box so that upon user selection of the program, the set top box uses one of the preloaded keys to access the program. The set top box creates a record of the selection, and at some later time communicates with a billing center to transmit the billing information (page 1, lines 22-29).

The present invention recognizes the limitations associated with such a system (page 2, line 29 - page 3, line 10), and proposes a solution. In the system according to the invention, the access device transmits the impulse purchase selection to the service provider and receives the authorization information in response to the impulse purchase selection, **that is, the authorization information is received upon the selection, and is not preloaded in the access device** (page 7, lines 2-16). In one embodiment, the selection and the authorization information may be communicating using a two way communications interface. In that regard, replacement claim 1 recites:

*means for communicating an impulse purchase selection to a service provider;*

*means for receiving an authorization key transmitted by the service provider in response to the impulse purchase selection; (emphasis added)*

Independent replacement claims 2, 7, 8 and 13 similarly recite this feature.

Applicant submits that nowhere does D1 disclose or suggest the above-noted feature. In fact, applicant submits that the D1 discloses the prior art system described by the present application, that is, one in which the authorization information is preloaded into the access device.

The portion of D1 cited in the WO mentions that the authorization information is derived from the one or more entitlement management messages (EMMs) that are interleaved with the program data (paragraph 48). However, this portion of D1 does not appear to be directed to impulse purchase selections.

The treatment of impulse purchase selections is described, for example on paragraphs 266-267. In these portions, D1 distinguishes between **ordinary pay per view events**, in which the customer has ordered in advance to see the event, and **impulse event**, where the customer decides at the time the event is broadcast that he want to order it (paragraph 266).


In the case of the ordinary pay per view, the user orders the event, and in response receives the EMMs containing the necessary authorization information from the entitlement agent. However, in the case of an impulse event, the purchase information is distributed by means of a global broadcast authenticated message (GBAM). The contents for the GBAM are described, for example, on paragraphs 277 - 293. The access device, or DHCT authenticates the GBAM with the required session key (MSK). When the customer specifies such a purchase, the access device compares the information contained in the GBAM with information associated with the access device (for example, whether the purchase exceeds the customer's purchase limits) and decrypts the selected program based on the results of the comparisons, and then generates a forwarded purchase message (FPM) that indicates what program has been purchased by the customer (paragraph 267; paragraphs 279-281). This description corresponds to the prior art described in the present application, that is, for impulse purchase selection, processing of the programs is performed using information preloaded in the access device.

Nowhere does D1 teach or suggest a system including "... means for communicating an impulse purchase selection to a service provider; means for receiving an authorization key transmitted by the service provider in response to the impulse purchase selection... (emphasis added)" In fact, D1 distinguishes between the ordinary pay per view and the impulse pay per view, wherein the operation of the system under impulse pay per view corresponds to the prior art system described by the present invention.

In view of the above, applicant submits that replacement claims 1-13 are novel and include an inventive step over the teachings of D1.

Respectfully submitted,

For: Thomson Licensing S.A. et al.

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Enclosures

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Date: 6/8/05

What is claimed is:

1. An access device comprising:

means for communicating an impulse purchase selection to a service provider;

means for receiving an authorization key transmitted by the service provider in response to the impulse purchase selection;

means for receiving a program associated with the impulse purchase selection; and

means for processing the received program using the authorization key.

2. An access device comprising:

means for indicating a desired impulse purchase selection;

means for communicating the desired impulse purchase selection to a service provider;

means for receiving an authorization key transmitted to the access device, and specific to, the desired impulse purchase selection;

means for receiving the transmission of a desired program associated with the impulse purchase selection;

means for processing the received program using the authorization key.

3. The access device in claim 2, wherein the means for communicating the desired impulse purchase selection transmits the selecting via an out of band frequency.

4. The access device in claim 2, wherein the means for receiving the authorization key receives the authorization key via an out of band frequency.

5. The access device in claim 2, wherein the means for communicating the desired impulse purchase utilizes a two way communications interface.

6. The access device in claim 5, further comprising means for generating a billing record in response to the receipt of the authorization key, wherein the billing record is transmitted via the two way communications interface.

7. An access device comprising:

a tuning and a communications unit for transmitting an impulse purchase message and, receiving an authorization key transmitted in response to the transmission of the impulse purchase message and associated with the impulse purchase program;

a controller and decoder unit responsive to the authorization key that formats a digital program into a video display.

8. A method of providing a secure means for purchasing an impulse purchase program comprising the steps of:

communicating a message to a service provider means that indicates an impulse purchase selection;

receiving authorization information transmitted in response to the communicated message, and specific to the impulse purchase program;

receiving the impulse purchase program;

processing the impulse purchase program in response to the authorization information.

9. The method of claim 8, wherein the communicating step comprises communicating the message via an out of band frequency.



10. The method of claim 8, wherein the receiving step comprises receiving the authorization via an out of band frequency.

11. The method of claim 8, wherein the communicating step comprises communicating the message via a two way communications interface.

12. The method of claim 8, further comprising the step of generating a billing record and transmitting the billing record via the two way communications interface.

13. A method of providing a secure means for purchasing an impulse purchase program comprising the steps of:

selecting the desired impulse purchase program;

communicating the desired impulse purchase program selection to a service provider;

responding to the communicated impulse purchase program selection by transmitting an authorization code uniquely associated with the desired impulse purchase program;

storing the authorization code associated with the desired impulse purchase program into a security module;

transmitting an impulse purchase program having an entitlement code associated with authorization code stored in the security module;

decoding the entitlement code;

comparing the entitlement code to the code stored in the security module to permit viewing of the impulse purchase program.